

## ABSTRACT

The present invention provides a vibration damping device capable of effectively damping the vibration  
5 during the rotation of rotor without disturbing the miniaturization of the peripheral structure of the rotor.

The vibration damping device 10 is provided with a support member 20 fixedly secured to a rotor shaft 14  
10 and a vibration damping member 22 nipped between a main mass 12 of the rotor and the support member 20. One axial end surface 26a of a flange 26 of the support member 20 is positioned generally perpendicular to an axis of the shaft 14. The vibration damping member 22  
15 is made of a visco-elastic material and fixedly connected, respectively, with one axial end surface 12a of the main mass 12 and with the axial end surface 26a of the support member 20 arranged in parallel and opposite to the former axial end surface 12a apart  
20 therefrom at a distance. When the vibration occurs during the rotation of the rotor, the vibration damping member 22 nipped between the axial end surfaces 12a and 26a deforms in a visco-elastic manner to mitigate and rapidly damp the vibration.

25

device.doc

